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UNITED STATES NAVAL OBSERVATORY
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U. S. Naval Observatory, Washington 25, D. C.

September 26, 1955

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS

JULY, 1955

By Winifred Sawtell Cameron

These results are based upon measurements made at the Naval Observatory on plates secured either there or at the Mt. Wilson Observatory. The symbols used for the entries in the successive columns are as follows:

U.T., the epoch of observation in Universal Time.

No., the identifying number of the group assigned by Mt. Wilson.

Δl , the heliographic difference in longitude from the central meridian, measured positive to the west.

φ , the heliographic latitude, measured positive to the north.

ρ , the heliocentric angular distance from the line joining the centers of the Earth and Sun.

A , the true area of the umbra plus penumbra, expressed in millionths of the visible hemisphere.

s , the number of spots.

An asterisk means that no Mt. Wilson number was assigned. Plates secured at the Naval Observatory are indicated by N, and those at Mt. Wilson by M. The plate quality, which follows, is indicated by:

1, Poor; 2, Fair; 3, Good; 4, Very Good; 5, Excellent.

The following five quantities are listed successively at the end of each day, and give for that day:

1. The total number of groups, g .
2. The longitude of the central meridian, L_0 .
3. The latitude of the center of the disc, B_0 .
4. The total value of A .
5. The total value of s .

The mean daily area and the mean relative sunspot number, $r=10g+s$ are given at the end of the month.

These results are a continuation of those published in the *Monthly Weather Review* from February 1, 1927 to December 31, 1947.

JULY

U. T.	No.	Δl	φ	ρ	A	s	U. T.	No.	Δl	φ	ρ	A	s	
		$^{\circ}$	$^{\circ}$	$^{\circ}$					$^{\circ}$	$^{\circ}$	$^{\circ}$			
1.544	11268	-72	+15	72	24	1		11267	-15	+31	32	16	1	
N-4	11268	-67	+15	67	24	1		11267	-14	+30	31	97	1	
	11267	-71	+33	74	36	1		11268	-15	+15	20	12	1	
	11267	-68	+33	70	73	1		11266	+7	-34	38	61	3	
	11267	-67	+31	70	194	2		11266	+9	-35	39	218	2	
	11266	-45	-35	56	61	3		(4) (295)	(+3)			622	14	
	11266	-44	-33	56	36	1								
	11266	-42	-34	55	242	3								
	(3) (347)	(+3)			690	13		6.547	11269	-60	+23	63	48	1
								N-4	11269	-48	+24	51	16	1
									11267	-7	+30	27	24	1
									11267	-5	+28	26	16	2
									11267	-4	+30	27	97	4
									11267	-4	+33	30	16	1
									11267	-3	+28	26	24	1
									11267	-2	+33	30	24	1
									11267	-1	+30	27	97	2
									11267	-1	+28	26	36	2
									11270	+14	+28	29	16	1
									11266	+15	-35	40	36	2
									11266	+16	-35	41	12	1
									11266	+20	-34	42	97	3
									11266	+21	-33	42	85	1
	(3) (335)	(+3)			612	17		(4) (281)	(+3)			644	24	
3.602	11267	-46	+32	52	16	2		7.524	11271	-59	+23	60	24	2
N-3	11267	-41	+30	46	121	1		N-4	11269	-49	+25	53	36	2
	11267	-40	+31	46	133	3			11269	-49	+24	52	36	1
	11267	-39	+28	48	12	1			11267	+5	+31	26	16	1
	11268	-40	+16	42	24	1			11267	+5	+33	29	24	1
	11266	-18	-35	42	24	1			11267	+6	+32	28	16	2
	11266	-17	-33	39	16	1			11267	+8	+31	27	97	6
	11266	-16	-34	40	267	1			11267	+9	+34	32	16	1
	(3) (320)	(+3)			613	11			11267	+10	+31	27	48	4
									11267	+11	+31	28	12	2
									11267	+12	+32	30	61	3
									11267	+13	+31	29	16	1
									11270	+26	+29	35	16	1
									11270	+28	+30	36	12	1
									11270	+28	+29	36	12	1
									11266	+32	-34	48	73	3
									11266	+33	-33	48	36	1
									11266	+34	-32	48	61	1
	(3) (307)	(+3)			708	22		(5) (268)	(+4)			612	34	
5.522	11269	-63	+24	65	12	1		8.617	11269	-35	+25	40	12	1
N-3	11267	-18	+29	32	24	1		N-2	11269	-35	+26	40	16	2
	11267	-16	+30	32	121	1			11269	-31	+26	36	16	1
	11267	-15	+28	29	61	3			11269	-29	+24	35	12	1
									11269	-27	+25	34	16	2
									11269	-26	+24	33	12	1
									11267	+22	+33	35	16	1
									11267	+23	+33	36	12	1
									11267	+24	+32	36	73	3
									11267	+25	+31	36	16	2

JULY

U.T.	No.	Δl	φ	ρ	A	s	U.T.	No.	Δl	φ	ρ	A	s	
		$^{\circ}$	$^{\circ}$	$^{\circ}$					$^{\circ}$	$^{\circ}$	$^{\circ}$			
	11267	+28	+32	38	24	2		11271	+3	+25	22	12	1	
	11267	+28	+31	38	85	2		11269	+21	+27	31	36	2	
	11267	+29	+30	38	24	1		11269	+23	+23	29	48	2	
	11267	+30	+31	39	36	1		11269	+24	+22	30	12	2	
	11266	+45	-34	57	12	1		11269	+25	+23	31	16	1	
	11266	+46	-33	57	12	2		(4) (201) (+4)				212	13	
	11266	+47	-32	57	36	1								
	(3) (254) (+4)				430	25		13,545	11276	-58	+20	59	16	1
9,776	11272	-42	+31	47	24	2	N-3	11275	-35	+24	40	24	3	
N-4	11272	-40	+30	46	12	1		11274	-11	+27	26	73	2	
	11272	-38	+28	44	16	1		11273	-11	-25	31	48	2	
	11271	-26	+26	34	16	1		11273	-11	-23	28	12	1	
	11269	-18	+25	27	12	2		11273	+1	-27	31	36	1	
	11269	-16	+26	26	16	2		(4) (189) (+4)				209	10	
	11269	-14	+27	26	24	3								
	11267	+39	+33	46	24	1	14,549	11276	-43	+19	45	16	1	
	11267	+41	+31	46	16	1	N-2	11277	-42	-28	51	36	1	
	11267	+42	+31	47	48	3		11277	-40	-27	49	24	1	
	11267	+43	+32	50	6	1		11274	+3	+27	24	36	2	
	11267	+45	+29	50	16	1		11274	+4	+27	25	16	1	
	11266	+60	-35	67	24	1		11273	+3	-25	28	16	1	
	(5) (239) (+4)				254	20		(4) (175) (+4)				144	7	
10,655	11273	-50	-23	56	12	1		15,555	11277	-28	-29	43	24	2
N-3	11272	-31	+30	39	24	1	N-2	11277	-26	-29	42	16	1	
	11269	-6	+26	24	12	2		11274	+16	+27	28	24	1	
	11269	-5	+25	23	12	1		(2) (162) (+4)				64	4	
	11269	-4	+27	24	36	3								
	11269	-3	+26	23	24	1	16,537	11277	-15	-28	36	32	1	
	11269	-1	+25	22	48	4	N-3	11277	-12	-27	33	12	1	
	11269	0	+23	20	48	1		(1) (149) (+4)				44	2	
	11269	0	+22	17	24	2								
	11267	+48	+34	54	24	1	17,637	11277	-1	-27	31	16	2	
	11267	+53	+31	56	36	2	N-2							
	(4) (227) (+4)				300	19		(1) (134) (+5)				16	2	
11,569	11274	-40	+28	45	16	1								
M-1	11274	-39	+29	45	12	3	18,531					0	0	
	11271	-6	+25	23	24	2	N-4							
	11269	+8	+28	26	24	2		(0) (123) (+5)				0	0	
	11269	+8	+27	26	16	2								
	11269	+9	+29	27	16	1	19,691	11281	+40	+29	45	16	1	
	11269	+12	+24	24	12	1	N-2	11280	+56	+18	57	24	1	
	11269	+12	+23	23	12	2		11280	+57	+16	57	48	1	
	11269	+13	+23	23	12	1		11278	+61	-22	65	48	1	
	11269	+14	+23	24	12	1		11278	+65	-25	70	48	1	
	11267	+60	+35	64	16	1		11278	+65	-24	69	36	1	
	(4) (215) (+4)				172	17		11278	+66	-23	70	85	1	
12,579	11274	-28	+26	35	36	2		11279	+70	-16	73	36	1	
N-3	11274	-23	+27	32	36	1		(4) (107) (+5)				341	8	
	11273	-25	-26	38	16	2								

JULY

U.T.	No.	Δl	φ	ρ	A	s	U.T.	No.	Δl	φ	ρ	A	s
20,522	11283	+32	+23	36	12	1		11286	-67	+21	68	48	2
N-2	11283	+33	+23	36	24	3		(1)	(4)	(+5)		104	4
	11282	+42	-26	51	48	2	28,565	11286	-60	+22	62	12	1
	11282	+43	-23	50	12	1	N-4	11286	-59	+21	60	12	1
	11282	+45	-24	52	61	1		11286	-58	+21	59	16	1
	11281	+48	+31	53	16	1		11286	-57	+20	58	24	2
	11280	+73	+18	74	16	1		11286	-55	+21	56	36	4
	11278	+79	-20	80	145	1		(1)	(350)	(+6)		100	9
	(5)	(96)	(+5)		334	11	29,568	11286	-46	+24	48	16	4
21,547	11282	+53	-26	59	24	2	M-3	11286	-44	+23	46	12	3
N-2	11282	+55	-24	61	12	1		11286	-43	+24	46	121	13
	11282	+59	-24	63	97	2		11286	-41	+25	44	16	3
	(1)	(83)	(+5)		133	5		11286	-40	+25	44	12	1
22,518	11284	-41	-30	53	24	1		11286	-39	+23	42	12	3
N-2	11282	+76	-22	77	194	1		(1)	(337)	(+6)		189	27
	(2)	(70)	(+5)		218	2	30,786	11286	-27	+22	31	48	1
23,722					0	0	N-2	11286	-26	+21	29	48	2
N-2								11286	-26	+23	30	48	2
	(0)	(54)	(+5)		0	0		11286	-24	+23	29	32	2
24,804					0	0		11286	-23	+22	27	32	2
N-2								11286	-23	+21	27	24	3
	(0)	(40)	(+5)		0	0		(1)	(321)	(+6)		232	12
25,533	11285	+70	-26	74	24	1	31,715	11286	-15	+21	21	48	2
N-3							N-2	11286	-14	+22	21	48	1
	(1)	(30)	(+5)		24	1		11286	-14	+23	22	36	2
26,535	11286	-88	+21	88	73	1		11286	-12	+21	18	16	1
N-3	11286	-85	+19	85	97	1		11286	-11	+22	18	48	1
	(1)	(17)	(+5)		170	2		11286	-10	+22	17	24	1
27,526	11286	-73	+21	74	24	1		11288	-4	-33	40	24	1
N-3	11286	-69	+20	70	32	1		(2)	(308)	(+6)		244	9

Mean for 31 days
 $A=272, r=36.3$